

A New Species of *Adiantum* (Pteridaceae) from Thailand

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ABSTRACT.—A new species, *Adiantum thongthamii* (Pteridaceae), known only from a small island in southeastern Thailand is described and illustrated.

Adiantum is a genus of ca 150 species widely distributed pantropically but extending as far as southern South America, New Zealand, Newfoundland, Alaska, and northeastern Asia, (Tryon & Tryon, 1982; Mabberley, 1997). Tagawa & Iwatsuki (1989) record ten species of *Adiantum* from Thailand.

During a field trip to southeastern Thailand in March 2002, an eleventh species, *Adiantum thongthamii*, was found in Koh Chang, a small island close to Cambodia.

Adiantum thongthamii Suksathan *sp. nov.* TYPE:—Thailand: Trat Province: Koh Chang, 600 m alt., 24 March 2002, *P. Suksathan 3303* (holotype: QBG; isotypes: AAU, L, US). **Figs. 1, 2.**

Species nova, *Adiantum erylliae* C.Christ. & Tard. affinis a qua differt squamis rhizomatis concoloribus rufis, foliis dense pubescentibus, rachidi non prolifera, petiolulis ca 1 mm, pinnis late flabellatis usque rotundatis, coriaceis, soris minoribus ca 1 mm latis, 8–21 in quaque pinna, pseudoindusiis minoribus obovatis 0.5–1.0 mm latis.

Plants terrestrial. Rhizomes short-creeping, erect to sub-erect, ca 5 mm diam; scales copious, narrowly lanceolate to linear, 4–5 × 0.1–0.9 mm, lustrous, concolorous, reddish brown, margins entire to sparsely minutely toothed in the upper half. Fronds monomorphic, simply pinnate, with or without a (smaller) conform terminal pinna, 7–20 cm long; stipes 3–10 cm long, lustrous, reddish brown to nearly black, sparsely to densely covered with grayish to reddish brown multicellular hairs; the hairs, spreading, 1.5–2 mm long, decreasing to ca 1 mm long toward the apex. Lamina oblong, to 2.5 cm wide; rachis with indument similar to the upper part of the stipe, neither prolonged nor proliferous; pinna pairs 3–6 (–9), opposite to alternate, basal pinnae often slightly reduced in size, upper pinnae rarely gradually reduced in size. Pinnae; stalks ca 1 mm long, with short hairs, flabellate-cuneate to flabellate-truncate or suborbicular, 7–15 × 9–20 mm, green when young becoming dark bluish green with age; distally lobed to 1/3 the length of the pinna, the sinuses typically narrow, lobes rounded to truncated, entire in sterile pinnae, coriaceous, idioblast absent, both surfaces densely hairy; the hairs ca 1 mm long, adaxial hairs gray, abaxial hairs

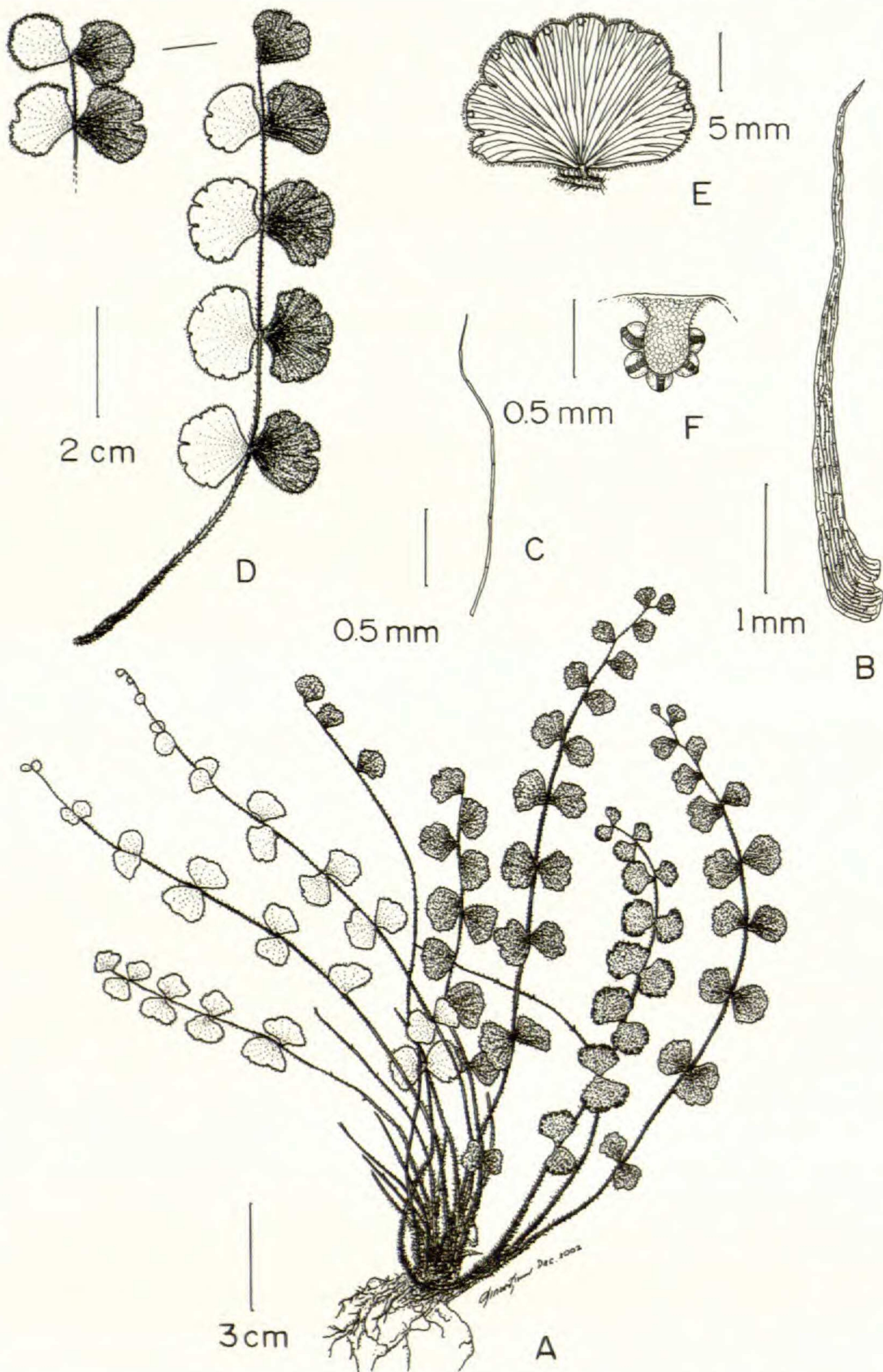


FIG. 1. *Adiantum thongthamii* Suksathan. A) Habit; B) rhizome scale; C) stipe hairs; D) frond and frond apex; E) pinna, abaxial surface with hairs removed; F) sorus with hairs removed. Drawn from the holotype (P. Suksathan 3303, QBG).



FIG. 2. Habit view of *Adiantum thongthamii* Suksathan at the type locality.

brown; veins free, forked, prominulous on lower surfaces, in dry specimens. Sori round, 8–21 per pinna; pseudoindusia small, obovate, 0.5–1 mm long, margin entire, hairy. Spores trilete, dark yellow to brown, the surfaces rugose, ca 50 μ m.

DISTRIBUTION.—Known only from the type locality at Koh Chang (12° 0' N, 102° 22' E), an island in SE Thailand.

HABITAT.—Occurs in full sun-xeric habitat on exposed sandstone outcrops along the Khao Laem mountain ridge between 500–640 m. *Adiantum thongthamii* was found growing with *Melastoma* spp. (Melastomataceae), *Nepenthes* spp. (Nepenthaceae), *Doritis* spp. (Orchidaceae), *Adiantum capillus-veneris* L. (Pteridaceae), *Selaginella siamensis* Hieron. (Selaginellaceae), and others.

Adiantum thongthamii is very distinct from other known species of *Adiantum* and is easily recognized by its once pinnate fronds with 3–6 (–9) pairs of broadly fan-shaped pinnae and by its dense wooly pubescence. *Adiantum thongthamii* differs from *A. erylliae* C. Chr. & Tard., and *A. capillus-junonis* Ruprecht by having hairy fronds and many smaller sori per pinna (8–21 versus 2–7) and from *A. caudatum* L. by its concolorous scales and pinna shape (broadly fan-shape versus parallelogram-shaped in *A. caudatum*).

Tryon and Tryon (1982) divided the genus *Adiantum* into eight groups based on morphology. *Adiantum thongthamii* appears to belong to the *A. philippense* Group, in having simply pinnate fronds, flabellate segments, and free veins. The subdivision by Tryon and Tryon has, however, strongly emphasizes the American species and does not include all taxa in the genus. Some species are also placed with uncertainty. Nevertheless, ongoing work at the DNA level should hopefully reveal more insight into natural groups and species relationships in the genus (A.R. Smith, pers. com.).

The species is named in honor of Associate Prof. ML Charuphant Thongtham of Thailand, an expert pterido-horticulturist who inspired my interest in ferns and plants in general.

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